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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,751	11/17/2003	Brig Barnum Elliott	BBNT-P01-090	5527
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ROPES & GRAY LLP PATENT DOCKETING 39/41 ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			EXAMINER SINGH, DALZID E	
			ART UNIT 2613	PAPER NUMBER
			MAIL DATE 11/15/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/715,751

Applicant(s)

ELLIOTT, BRIG BARNUM

Examiner

Dalzid Singh

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-41 and 47-55 is/are allowed.
- 6) ☒ Claim(s) 42-45 and 56-59 is/are rejected.
- 7) ☒ Claim(s) 46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 42-45 and 56-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolcott (US Patent No. 6,931,232).

Regarding claim 42, Wolcott disclose a method, comprising:

receiving data from a first node via a first optical channel at a second node,  
where the second node is a mobile node (see col. 6, lines 31-67 to col. 7, lines 1-28);

establishing a second optical channel with a third node from the second node  
based on a location and velocity of the second node; and

forwarding the data from the second node to the third node using the second  
optical channel (see Fig. 3, the relay stations (32, 34) relays messages from one node  
to other nodes).

Regarding claim 43, where receiving data from the first node at the second node  
comprises: pointing a first optical aperture towards the first node; and receiving the

data from the first node via the first optical channel using the first optical aperture (it is inherent to point the aperture to the communicating node).

Regarding claim 44, where establishing the second optical channel with the third node from the second node comprises:

pointing a second optical aperture towards the third node based on the location and velocity of the second node (it is inherent to point the aperture to the communicating node).

Regarding claim 45, where establishing the second optical channel with the third node from the second node comprises:

receiving a location and a velocity and/or an acceleration of the third node; and  
pointing the second optical aperture towards the third node based on the location and velocity of the third node (the velocity and location of the node is provided by the GPS system; see col. 6, lines 31-65 to col. 7, lines 1-30).

Regarding claim 56, Wolcott discloses a network node, comprising:

a radio-frequency receiver configured to receive one or more first radio-frequency messages that include first data describing a movement of a first mobile node (see col. 6, lines 31-67 to col. 7, lines 1-3);

an optical system configured to point a first optical aperture towards the first mobile node based on the first data, and communicate with the first mobile node via a first optical channel using the first optical aperture (see col. 7, lines 4-28).

Regarding claim 57, where the radio-frequency receiver is further configured to receive one or more second radio-frequency messages that include second data describing a movement of a second mobile node and further comprising a second optical system configured to point a second optical aperture towards the second mobile node based on the second data, and communicate with the second mobile node via a second optical channel (see col. 6, lines 31-67 to col. 7, lines 1-3).

Regarding claim 58, where the network node comprises a mobile node (Wolcott discloses mobile node).

Regarding claim 59, where the network node comprises a geo-stationary node (see Fig. 2).

***Allowable Subject Matter***

3. Claims 14-20, 22, 35-41 and 47-55 are allowed.
4. Claim 46 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Venderveen et al (US Pub. 2004/0076164) is cited to show reconfigurable network node.

Arnold et al (US Patent No. 6,347,001) is cited to show free-space laser communication system having six axes of movement.

Bloom (US Patent No. 6,323,980) is cited to show hybrid picocell communication system.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 5, 2007

**DALZID SINGH**  
**PRIMARY EXAMINER**

*Dalzid Singh*